

Abstract

The present invention replaces liquid crystal light control elements in fiber-optic faceplate liquid crystal displays (LCD) with suspended particle devices (SPDs), and provides for passive light control without the need for either polarized light or special alignment layers. A fluid or film containing suspended particles may be asymmetric in shape so that their optical density depends strongly upon their orientation. The orientation of the particles within the fluid can be manipulated by an application of an electric field, so that the fluid or film may appear to be transparent to both polarizations of light when the electric field is applied, and opaque when the electric field is removed and the orientation of the particles is allowed to randomize naturally.